

## **Freshline® Food Laboratory Services**

*Bringing invaluable support to your food preservation decision-making process*

### **Why Use Air Products' Food Lab?**

In a competitive business climate of frequent product launches, it's critical to determine the feasibility of preserving your food product before capital costs are incurred. For existing frozen, chilled or packaged products, more cost-effective, higher-performance solutions may also be needed.

Whatever the application, food manufacturers rely on Air Products' food industry professionals to evaluate their business needs, understand their goals, and provide the information needed to achieve them. Our experts develop complete freezing and preservation profiles based on actual product trials run in our lab on production-scale equipment. The end result is a comprehensive preservation analysis of your product — knowledge you can use to help you make your important business decisions.

"The Food Lab testing helped us make critical decisions on a major investment. By being able to work with the actual products on-site, we were also able to draw on the collective input of many engineering, design, and technical resources available on the Air Products campus," notes Carolyn Ritchie of Nestle Food Services' Manufacturing Services.

### **Our Capabilities**

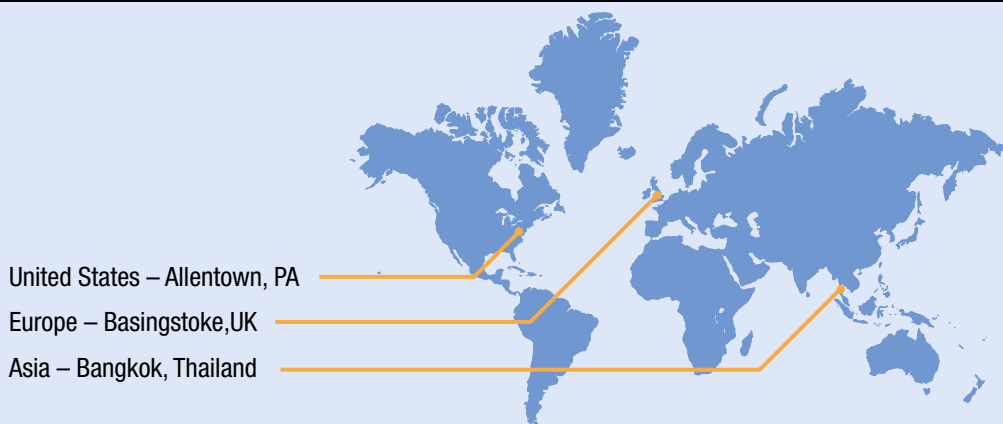
A key ingredient in our ongoing recipe for success is an aggressive research and development program which uncovers new systems that meet our customers' needs for reduced costs, improved product quality, higher yields, and more efficient operations. Much of this research is conducted at our unique, state-of-the-art, fully-equipped food laboratories. As part of our Freshline services portfolio to the food industry, our labs serve as vital resources for global food customers who want to more effectively evaluate freezing, chilling and packaging of a variety of foods including:

- Meat
- Poultry
- Seafood
- Prepared Foods
- Dairy Products
- Fruits and Vegetables
- Baked Goods
- Snack Items
- Sauces

*"If a picture is worth a thousand words, the ability to see the sample and understand the dynamics involved in freezing it had to be worth even more!"*

Carolyn Ritchie  
Nestle Food Services'  
Manufacturing Services

### **Air Products Food Lab Locations**



### *How You Benefit*

- Determine the most economical and efficient way of preserving your product. We objectively develop profiles and other data to support our recommendations on the samples you provide.
- Observe the Food Lab and sampling first-hand. This provides you with a clear and accurate view of exactly how your product will react, since all food reacts differently to freezing, chilling and packaging.
- Tap into our extensive database and its numerous case histories for comparative information.
- Discover your product's freezing effectiveness and determine if its characteristics need to be changed to improve the freezing profile.
- For modified atmosphere packaging (MAP), we can evaluate your products, conduct shelf life testing, and help you choose the optimum gas mixture for your application.

### *Comprehensive Testing*

With our full portfolio of Freshline freezers and sophisticated testing methods, we provide a wealth of product-specific information aimed at making your freezing decisions easier.

- Calorimetry is used to determine the amount of refrigeration needed to achieve the freezing or chilling level you require.
- Physical characteristics such as weight and product thickness are carefully evaluated.
- Retention time is assessed—from the starting inlet temperature to the final frozen temperature—with various freezing systems.
- Actual belt loading tests are conducted to finalize the size of equipment needed to match your production requirements.
- Digital photos are taken to help you with the best positioning on the belt.

Additionally, we offer dehydration, moisture content, and custom calorimetry testing.

And, through an outside laboratory, we make available a full menu of additional food testing services. Air Products also offers limited testing at your facility using smaller scale portable freezing equipment to evaluate your product samples on-site.

### *Ask Air Products . . . and expect more.*

Whether your packaging, cooling, chilling or freezing applications include bakery goods, fruit and vegetables, poultry, meats, ready meals or anything in between, Air Products' Freshline solutions offer you the high-purity gases and equipment, the international supply capability, and – most important – the unmatched industry experience and technical support to help you succeed, just about anywhere in the world. We can help you improve your productivity, lower your costs, maximize your returns, and, as a result, help make you more competitive in a very competitive market.

### *For More Information*

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